DRAFT

Comprehensive Plan Cost Comparison 3/22/2017

| | UAO COST ESTIMATE JULY 2012 | EXPENDED TO DATE POST SETTLEMENT 2014-2016 | COST TO COMPLETE REMAINING 2017-2019 | TOTAL COST AT COMPLETION IN 3 YEARS | TOTAL COST AT COMPLETION WITH CONTINGENCIES | % Contingency | COST TO COMPLETE REMAINING 2017-2021 | TOTAL COST AT COMPLETION IN 5 YEARS | TOTAL COST AT COMPLETION WITH CONTINGENCIES | % Contingency | NOTES |
|--|---|--|---|---|---|---------------|---|---|---|---------------|---|
| | | | Project Complete in 3 Years | | | | Project Complete in 5 Years | | | | |
| MassDEP Funding | | \$ 600,000 | \$ 600,000 | 0 \$ 1,200,000 | \$ 1,200,000 | 0% | \$ 1,000,000 | \$ 1,600,000 | \$ 1,600,000 | 0% | 2014-2021 - ETD for 3 years - Needs verification from 3/9/17 meeting - based on EPA comment |
| USACE Funding | | \$ 3,900,000 | \$ 6,100,000 | 0 \$ 10,000,000 | \$ 10,000,000 | 10% | \$ 8,300,000 | \$ 12,200,000 | \$ 13,420,000 | 10% | Per Corps - \$3.9M (2014-2016), 2.5M (2017-2018) \$1.1M/yr (2019 - 2021) |
| Pro-Serv Contract (WQM/Monit) | | \$ 7,500,000 | \$ 7,500,000 | 0 \$ 15,000,000 | \$ 16,500,000 | 10% | \$ 12,500,000 | \$ 20,000,000 | \$ 22,000,000 | 10% | assumes \$2.5M/yr - cost provided by Corps |
| Intertidal | \$ 78,400,763 | | | | | | | | | | |
| UH Intertidal | | \$ - | \$ 44,611,200 | 0 \$ 44,611,200 | \$ 53,533,440 | 20% | \$ 44,611,200 | \$ 44,611,200 | \$ 53,533,440 | 20% | UAO assumed 48,000 CY and current approximation is 49,568 CY (no PMC, Marsh Is. or LH) - \$900/cy |
| Parcel 265 | | \$ 2,224,499 | \$ | - \$ 2,224,499 | \$ 2,224,499 | 0% | \$ - | \$ 2,224,499 | | 0% | Not included in UAO estimate |
| PMC | | \$ 1,137,718 | | | | 10% | \$ 8,288,359 | | · · · · · · · · · · · · · · · · · · · | 10% | UAO included this with intertidal volume. CTC includes SES, T&D, sheetpile install |
| BtB and LH | | \$ - | \$ 2,622,08 | 5 \$ 2,622,085 | \$ 3,933,128 | 50% | \$ 2,622,085 | \$ 2,622,085 | \$ 3,933,128 | 50% | Estimate from Jacobs proposal dated May 17, 2016; added fee in Rev9 |
| Marsh Island | \$ 3,380,452 | | \$ 1,620,000 | 0 \$ 1,620,000 | \$ 1,782,000 | 10% | \$ 1,620,000 | \$ 1,620,000 | \$ 1,782,000 | 10% | 1800 cubic yards and average cost for on shore and mechanical dredge (PMC). \$900/cy |
| Aerovox | | | | | | | | | | | |
| Aerovox Interim Cap | | \$ - | \$ 4,800,000 | 0 \$ 4,800,000 | \$ 6,240,000 | 30% | \$ 4,800,000 | \$ 4,800,000 | \$ 6,240,000 | 30% | Assumed 3 ft carbon sand cover (per Corps direction). Temporary solution does not complete final remedy. |
| Interim Cap LTM | | | \$ 450,000 | 0 \$ 450,000 | \$ 540,000 | 20% | \$ 750,000 | \$ 750,000 | \$ 900,000 | 20% | Assumed annual benthic and sampling of cover and reporting. No replacement costs. |
| esiin sap 2 | | | Ţ 100,00 | 100,000 | 7 0.0,000 | | + 100,000 | Ţ 100,000 | + 000,000 | | Assumed annual pertune and sampling of cover and reporting. No replacement costs. |
| Cells 1, 2, 3 | \$ 23,958,630 | | | | | | | | | | |
| Cells 1, 2, 3 Interim Remedy | , | | \$ 1,000,000 | 0 \$ 1,000,000 | \$ 1,200,000 | 20% | \$ 1,000,000 | \$ 1,000,000 | \$ 1,200,000 | 20% | |
| • | | | , , , | , , | , , | | | | , , | | |
| Full Demob | \$ 7,977,325 | \$ - | \$ 5,785,460 | 0 \$ 5,785,460 | \$ 7,810,370 | 35% | \$ 5,785,460 | \$ 5,785,460 | \$ 7,810,370 | 35% | CTC from May 2016 Jacobs proposal. Contingency based upon undefined future status and necessary improvement of Areas C and D. |
| Dredge & Fill LHCC | \$ 39,838,604 | | \$ | - \$ - | \$ - | 0% | | \$ - : | - | 0% | |
| Construct CAD Cell | | \$ 11,000,000 | | \$ 11,000,000 | | 0% | | \$ 11,000,000 | \$ 11,000,000 | 0% | UAO costs for all work related to CAD Cell, less the \$9M from EPA HQ (need to verify if paid back) |
| Dredge and Fill LHCC - Jacobs | | \$ 13,000,000 | | \$ 13,000,000 | | | | \$ 13,000,000 | \$ 13,000,000 | 0% | Jacobs LH dredging to date |
| UH & LH to LHCC Mechanical - Jacobs | | \$ 642,867 | | | | | \$ 7,202,775 | | | 20% | One plant 120 days (existing UH CTC plus 37C&D, MU25, T&T'), includes current Jacobs costs |
| Dredge and Fill LHCC - BV | | | \$ 17,000,000 | | | | \$ 17,000,000 | | | 10% | Per USACE Email (3/16/17) changed from \$18M to \$17M. Fixed Cost Contract estimate |
| Survey Contract - BV | | | \$ 700,000 | | | | \$ 700,000 | | · · · · · · · · · · · · · · · · · · · | 0% | Per USACE Email (3/16/17) changed from \$800k to \$700k. Based on award to Bryant |
| Between the Bridges Subtidal | | \$ - | \$ 2,159,328 | | | | \$ 2,159,328 | | | 20% | Negotated and Awarded, added fee in Rev9 |
| Dredge Cleanup Passes - Jacobs | | | \$ 1,700,000 | | | | \$ 1,700,000 | | \$ 1,870,000 | 10% | 10% cleanup passes, based on BV CTC |
| Cap LHCC | \$ 5,780,303 | \$ - | \$ 5,100,000 | 0 \$ 5,100,000 | \$ 5,992,500 | 18% | \$ 5,100,000 | \$ 5,100,000 | \$ 5,992,500 | 18% | Cost estimate from EPA |
| | | | | | | | | | | | |
| Hydraulic Dredging | \$ 154,456,091 | \$ 64,548,103 | | - \$ 64,548,103 | | | \$ - | \$ 64,548,103 | · · · · · · · · · · · · · · · · · · · | 0% | 2014 through 2016 dredging less \$12M, PMC, Parcel 265 and fixed costs |
| Temporary Pipeline Relo | | - | \$ 235,659 | 9 \$ 235,659 | \$ 235,659 | | \$ 235,659 | \$ 235,659 | \$ 235,659 | 0% | Negotated and Awarded |
| Capping DDA | | - | \$ | - \$ - | \$ - | 20% | \$ - | \$ - | \$ - | 20% | Capping of DDA cost estimated from ESD 4 |
| Residual management sand | | - | \$ 11,700,000 | | | | \$ 11,700,000 | | \$ 12,870,000 | 10% | This is an assumed volume of 100,000 cy |
| LHCC O&M | \$ 580,163 | - | \$ 689,052 | | | ļ | \$ 689,052 | | | 0% | Cost to Complete is escalated UAO cost (3.5%) |
| Seafood Monitoring | \$ 721,387 | - | \$ 579,290 | | | | \$ 579,290 | | | 0% | Costs from MassDEP |
| Benthic Monitoring | \$ 818,703 | - | \$ 972,362 | 2 \$ 972,362 | \$ 972,362 | 0% | \$ 972,362 | \$ 972,362 | \$ 972,362 | 0% | Cost to Complete is escalated UAO cost (3.5%) |
| Fixed Costs | \$ 54,927,518 | 0.504.074 | Φ 0.000.444 | 2 040 007 | A 7040,000 | 400/ | A 0.055.004 | Φ 0.040.005 | A 40.004.704 | 400/ | Jacobs Fixed Costs, |
| Project Management and Admin | | \$ 3,584,971 | \$ 3,633,410 | , , | | ļ | \$ 6,055,694 | | \$ 10,604,731 | 10% | |
| Site Ops and Warehouse | | \$ 2,608,019 | | | | | \$ 4,405,437 | | \$ 7,714,802 | 10% | |
| Air Monitoring | | \$ 964,636 | \$ 459,500 | 6 \$ 1,424,142 | \$ 1,566,555.67 | 10% | \$ 765,843 | \$ 1,730,479 | \$ 1,903,526 | 10% | |
| SUBTOTAL | \$ 370,839,939 | \$ 111,710,813 | \$ 138,151,754 | | | | \$ 150,542,543 | | · · · · · · · · · · · · · · · · · · · | | Complete all work listed above. |
| SETTLEMENT AMOUNT | | | | \$ 366,250,000 | | | | \$ 366,250,000 | \$ 366,250,000 | | |
| INTEREST | | | | \$ 2,000,000 | | | | \$ 2,000,000 | - | | EPA assumption, correct interest rates and values to be provided, per EPA \$2M in avail. Funding but not in contingency. |
| AVAILABLE FOR FUTURE SUBTIDAL | - | | | \$ 118,387,433 | . , , | | | \$ 105,996,643 | \$ 77,851,888 | | Settlement less Subtotal of work listed above, Funds available to dredge subtidal areas |
| SUBTIDAL CUBIC YARDS - HYBRID | 1 | | | \$ 283,224 | , | | • | 253,580 | 186,249 | _ | \$418/CY Hybrid dredging, desanding, dewatering, and T&D |
| Aerovox Sediment Removal | | \$ - | \$ 18,627,241 | 18,627,241 | \$ 27,940,861 | 50% | \$ 18,627,241 | \$ 18,627,241 | \$ 27,940,861 | 50% | |
| Capping DDA | | | - | \$ - | - | 20% | \$ - | \$ - | \$ - | 20% | Included in Cells #123 Final Remedy. |
| Cells 1,2, 3 Final Remedy - no mixed waste | | | | \$ 16,613,069 | \$ 21,596,990 | 30% | | \$ 16,613,069 | \$ 21,596,990 | 30% | |
| Cells 1, 2, 3 Final Remedy | | | \$ 22,969,595 | 5 \$ 22,969,595 | \$ 29,860,474 | 30% | \$ 22,969,595 | \$ 22,969,595 | \$ 29,860,474 | 30% | Includes \$1,781,530 to cap the DDA. |

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